WHAT IS CLAIMED IS:

1   1.   A method for pre-processing an access plan generated for a query in a relational database

2   management system, said access plan including a plurality of operation codes, each of said

3   operation codes being associated with one or more executable functions for performing the

4   query, said method comprising the steps of:

5   (a)   determining from the access plan an executable function associated with a first

6   operation code; and

7   (b)   augmenting said first operation code in the access plan with a pointer to said

8   executable function.

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1   2.   The method as claimed in claim 1, further comprising repeating steps (a) and (b) for the

2   remaining operation codes in the access plan.

1   3.   The method as claimed in claim 1, wherein said step (b) comprises augmenting said first

2   operation code in the access plan with a pointer to an intermediate function, said intermediate

3   function including a data structure for storing a pointer to said executable function.

1   4.   The method as claimed in claim 3, wherein said data structure includes means for storing

2   information associated with said executable function or said first operation code.

1   5.   The method as claimed in claim 1, wherein said step (b) comprises augmenting said first

2   operation code in the access plan with a second pointer to a data structure, said data structure

3   providing means for storing information associated with said first operation code or said

4   executable function.

1   6.   The method as claimed in claim 1, wherein said step (a) further includes assessing the

2 executable function associated with the first operation code and if applicable, replacing the call

3 to the executable function with a call to a second executable function.

1 7.   The method as claimed in claim 3, wherein said intermediate function includes

2 processing operations for the first operation code or the executable function associated with the

3 first operation code.

1 8.   The method as claimed in claim 7, wherein said processing operations in the intermediate

2 function include gathering statistics on the use of the executable function associated with the

3 operation code.

1 9.   The method as claimed in claim 7, wherein said processing operations in the intermediate

2 function include a pause for receiving user input before or after the call to the executable

3 function.

1 10.   A computer program product for use on a computer wherein queries are entered by a user

2 for retrieving data in a relational database management system having a query optimizer for

3 generating an access plan for executing the query, said computer program product comprising:

4   a recording medium;

5   means recorded on said recording medium for instructing said computer to perform the

6 steps of:

7   (a)   determining an executable function associated with a first operation code in the

8 access plan, the first operation code being one of a plurality of operation codes; and

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9　　　(b)　　augmenting said first operation code in the access plan with a pointer to said

10　executable function.

1　11.　The computer program product as claimed in claim 10, the means for instructing said

2　computer further comprising repeating steps (a) and (b) for the remaining operation codes in the

3　access plan.

1　12.　The computer program product as claimed in claim 10, wherein said step (b) comprises

2　augmenting said first operation code in the access plan with a pointer to an intermediate function,

3　said intermediate function including a data structure for storing a pointer to said executable

4　function.

1　13.　The computer program product as claimed in claim 12, wherein said data structure

2　includes means for storing information associated with said executable function or said first

3　operation code.

1　14.　The computer program product as claimed in claim 10, wherein said step (b) comprises

2　augmenting said first operation code in the access plan with another pointer to a data structure,

3　said data structure providing means for storing information associated with said first operation

4　code or said executable function.

1　15.　The computer program product as claimed in claim 10, wherein said step (a) further

2　includes assessing the executable function associated with the first operation code and if

3　applicable, replacing a call to the executable function with a call to another executable function.

1 16.   The computer program product as claimed in claim 12, wherein said intermediate

2 function includes processing operations for the first operation code or the executable function

3 associated with the first operation code.

1 17.   The computer program product as claimed in claim 16, wherein said processing

2 operations in the intermediate function include gathering statistics on the use of the executable

3 function associated with the first operation code.

1 18.   The computer program product as claimed in claim 12, wherein said processing

2 operations in the intermediate function include a pause for receiving user input before or after a

3 call to the executable function.

1 19.   A relational database management system for use with a computer system wherein

2 queries are entered by a user for retrieving data from tables, the relational database management

3 system including a query optimizer for generating an access plan associated with the queries

4 entered by the user, said relational database management system comprising:

5   (a)   means for determining an executable function associated with each of a plurality

6 of operation codes in the access plan; and

7   (b)   means for augmenting said operation codes in the access plan with a pointer to

8 said executable function associated with each operation code.

1 20.   The relational database management system as claimed in claim 19, wherein said means

2 for augmenting said operation codes includes means for replacing said operation codes in the

3 access plan with a pointer to an intermediate function, said intermediate function including a data

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4   structure for storing a pointer to said executable function.

1   21.   The relational database management system as claimed in claim 20, wherein said data

2   structure includes means for storing information associated with said executable function or said

3   operation codes.

1   22.   The relational database management system as claimed in claim 19, wherein said means

2   for augmenting said operation codes includes means for adding another pointer to a data

3   structure, said data structure providing means for storing information associated with said

4   operation codes or said executable function.

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